

# PHYSICS AND ASTRONOMY COLLOQUIUM

## Growth and Evolution of Supermassive Black Holes through Galaxy Mergers

**Friday, October 18 | 3:30-4:45 p.m. | Planetary Hall 120**

After decades of supermassive black hole observations (SMBHs), the role of galaxy mergers in their growth and evolution remains uncertain. During periods of intense growth and accretion of material, the SMBHs can be classified as active galactic nuclei (AGN).

Join Adi Foord, expert on high-resolution X-ray observations of accreting black holes in galaxy mergers, who will present research on quantifying the dual AGN fraction as a function of cosmic time, via a large and uniform study of SMBHs via X-ray observations. By analyzing available data in wide and deep public observational surveys, the dual AGN fraction can be better constrained both in the early and late universe. She will highlight the capabilities of future high spatial-resolution X-ray observatories, which will revolutionize the field of dual AGN detectability, and our understanding of the role mergers play in AGN triggering.



## ADI FOORD

Adi Foord is an expert on high-resolution X-ray observations of accreting black holes in galaxy mergers. Foord is the principal investigator on numerous observing programs using various ground and space-based observatories, including the Chandra X-ray Observatory, XMM-Newton, and the Magellan telescope. Foord is the co-lead of the science working group on supermassive black holes and galaxy evolution for the AXIS X-ray probe mission recently selected by NASA.